VEASEY (C.A.)

A Case of double Coloboma of the Choroid.

A CASE OF DOUBLE COLOBOMA OF THE CHOROID.

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(*With an ophthalmoscopic drawing in the text.*)

THE following case of coloboma of the choroid, which seems to possess some points of interest peculiar to itself, presented the following history:

A. S., female, aged twenty-four, came to me for the treatment of a variety of symptoms which she attributed to her eyes. For several years she had had frequent frontal and occipital headaches accompanied by nausea, and occasionally by vomiting, always aggravated by doing any near work. The headache was very severe, and the patient stated that almost every week she was obliged to spend one day in bed on account of it—usually a day in the latter part of the week. There were also present symptoms of accommodative asthenopia and ciliary pain. She had been wearing sphero-cylindrical lenses for three years, with relief of the symptoms for one year after they were obtained. The family history was good. Both her parents and herself denied having had any specific lesion. The general health was very good excepting the disturbance arising from the ocular symptoms. The vision and accommodative power were as follows:

O.D.V. $\frac{5}{7.5}$ Jäger, No. 2——3″–28″
O.S.V. $\frac{5}{15}$ Jäger, No. 2——5″–10″

After she obtained her correction, which was as follows;

O.D. + S. .75 D ⊂ + C. .75 D. ax. 90°
O.S. + S. 1.25 D. ⊂ + C. 1.75 D. ax. 90°

the vision was for the right eye $\frac{5}{5}$ full, for the left eye $\frac{5}{5}$ partial, the best working distance being 16″.

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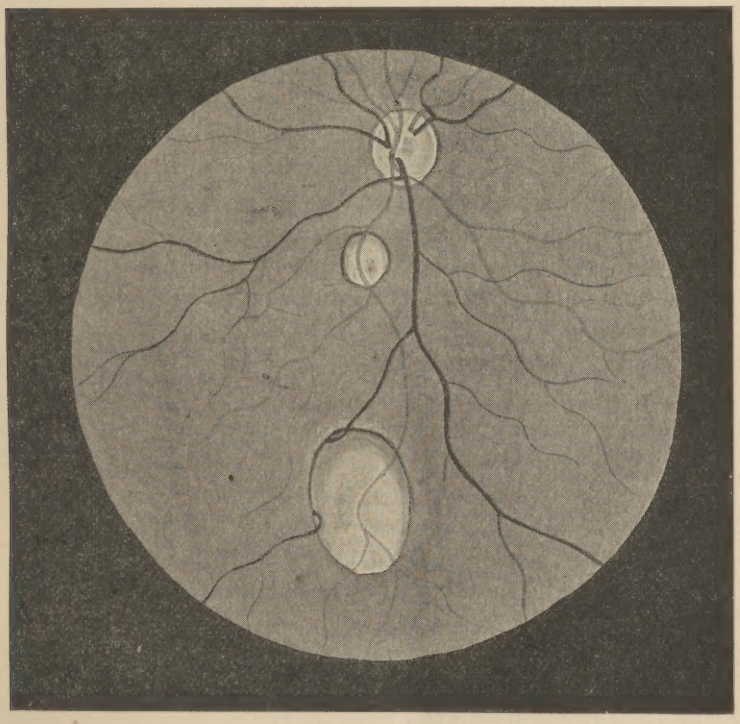
The tests for muscular balance showed no trouble in this direction. Both pupils were normal, reacting quickly to light, convergence, and accommodation. The tension was also normal and the ophthalmoscopic changes were as follows :

O.D.—Media clear, disc oval, deep central physiological cup, absorbing conus to the nasal side of disc, cilio-retinal vessel to the temporal side about the junction of the upper and lower quadrants, choroidal ring all around, no macular disturbance.

O.S.—Media clear, oval disc, deep central physiological cup, choroidal ring all around, veins slightly fuller than normal, but blood apparently not darker than usual. About the distance of two thirds of the diameter of the disc below it and slightly to the nasal side, is a small circular coloboma of the choroid, greenish-white in color, which is about two thirds as large as the disc itself. The margin is pigmented all around while the bottom shows numerous elevations and depressions, presenting an opalescent appearance, and having on its surface two scleral vessels, the one to the temporal side sending off a branch. The depth of the coloboma varies from 1 to 2.50 D. in different parts. Passing over it from above downward is the inferior nasal artery. The surrounding choroid is in a perfectly healthy condition.

About the distance of two diameters of the disc below the coloboma just described is a second, oval in shape and much larger than the former, measuring, as nearly as could be ascertained, about $1\frac{1}{2} \times 2\frac{1}{3}$ diameters of the disc and being slightly narrower in the lower than in the upper half. The margin of this also is pigmented, much more heavily in the upper than in any other part, and the color, as in the first, is of a dirty greenish-white. The coloboma, in the upper outer portion and in the lower inner portion, slopes gradually from the margin towards the centre, while in the other parts the edge is more abrupt. The bottom presents numerous small elevations and depressions and has an opalescent appearance like the first, the depth varying from 2 to 5 D. The inferior nasal artery that passes over the upper coloboma from above downward continues its downward course, passing beneath a branch of the inferior temporal vein and crossing the lower coloboma in a curve, sending off a branch just before it reaches the lower margin. The branch of the inferior temporal vein just mentioned passes over the edge of the coloboma above, dipping beneath it so as to be entirely lost from view, and then, reappearing near the middle of the outer edge, passes downward and outward. Coming from beneath the upper

outer margin is a scleral vessel which sends two branches downward, one to the temporal and one to the nasal side, both being lost under the margin. Above and to the nasal side of the lower coloboma the choroid is distinctly thinner, though in all other directions it appears to be in a healthy condition. The accompanying illustration made from a water-color sketch by Mr. T. C. Lander of this city, shows very well the condition of the fundus.



The field of vision shows a scotoma for form and colors of the exact shape of the smaller coloboma, the larger one being so far in the periphery that it is indicated in the field only by a curve in the upper edge.

The defects are believed to be congenital, an examination by my friend, Dr. Edward Jackson, over three years ago revealing practically the same condition. No other congenital defects could be found in the patient, and an examination of the father and a sister showed nothing more abnormal than low refractive errors.

The case presents the following points of interest:

There are two separate colobomata of the choroid with a wide area of intervening healthy choroidal tissue, in which the field of vision is perfectly normal. Cases have been recorded in which a large coloboma was divided into different parts, as, for example, the case of Hirschberg, quoted by Bock[1] in his excellent monograph, where the coloboma was divided into three parts, while in the middle ran a thin strip of choroidal tissue; or Hoffman's[2] case, in which there was an intervening space of healthy choroidal tissue, but which was no wider than two thirds the diameter of the small coloboma, the latter being about half the size of the disc; but the author has been unable to find any case recorded in which the colobomata were so widely separated, and in which so much of the intervening choroid was in a healthy condition—in the present case the whole space, with the exception of a slight thinning above the lower coloboma, being normal.

The shape of the defects is of interest, the upper being circular and the lower oval. The visual field shows a scotoma corresponding in shape to the upper coloboma, and a curve in its upper margin corresponding to the margin of the lower coloboma. This agrees with the observations of Schmidt-Rimpler[3] and De Wecker,[4] though Johnson[5] claims that it is very seldom that the field shows a defect even slightly resembling the outline of the defect in the choroid.

It is also of interest to note that the choroid below the lower coloboma is in a normal condition. The defect is supposed to be due to the non-closure of the ocular fissure, but why it should have closed in certain parts and not in others, or why, if it were entirely closed, it separated above and below, leaving so wide a space perfectly healthy in almost the entire extent, is only a matter of conjecture.

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[1] Bock, *Die Angeborenen Kolobome des Augapfels*, p. 95.
[2] *Graefe-Saemisch Augenheilkunde*, p. 73
[3] Schmidt-Rimpler, *Graefe's Arch.*, xxiii, 4, p. 176.
[4] De Wecker et Landolt, *Traité Complet. d'Oph.*, vol. ii., p. 515.
[5] Johnson, *Arch. of Oph.*, 1890, p. 28.